

REMARKS

Claims 1-3, 5, 10-12 and 14-22 are pending in the present application. Claims 1 and 10 have been amended. Claims 15-22 have been presented herewith. Claims 4 and 13 have been canceled.

Priority Under 35 U.S.C. 119

A Claim of Priority Letter and certified copy of Priority Application No. 2002-242982 were filed on November 17, 2005. **The Examiner is respectfully requested to acknowledge receipt of the certified copy of the priority document, and to confirm that the Claim for Priority Under 35 U.S.C. 119 is complete.**

Drawings

Enclosed is one (1) red-inked drawing Annotated Sheet, wherein the pipeline in Fig. 2 has been denoted by reference numeral 238, as described on page 13, lines 25-29. Also enclosed is one (1) drawing Replacement Sheet, incorporating the above noted correction. **The Examiner is respectfully requested to acknowledge receipt and acceptance of the drawing Replacement Sheet.**

Claim Rejections-35 U.S.C. 102

Claims 1, 2 and 5 have been rejected under 35 U.S.C. 102(b) as being anticipated by the Safi reference (U.S. Patent No. 5,681,470). This rejection, insofar as

it may pertain to the presently pending claims, is traversed for reasons that will subsequently follow.

Claim Rejections-35 U.S.C. 103

Claims 1-3, 5, 10-12 and 14 have been rejected under 35 U.S.C. 103(a) as being unpatentable over the Safi reference. Also, claims 4 and 13 have been rejected under 35 U.S.C. 103(a) as being unpatentable over the Safi reference, in further view of the Jaros et al. reference (U.S. Patent No. 4,036,750). These rejections, insofar as they may pertain to the presently pending claims, are traversed for the following reasons.

The method for treating an organic exhaust gas of claim 1 includes in combination "...contacting the organic exhaust gas with the treating liquid so as to dissolve the harmful substance into the treating liquid and provide treated exhaust gas"; "contacting bacteria with the treating liquid containing the harmful substance so that the harmful substance is biochemically degraded"; and "contacting the treated exhaust gas with an active carbon so as to absorb the harmful substance remaining in the treated exhaust gas into the active carbon". Applicant respectfully submits that the prior art as relied upon by the Examiner does not disclose or make obvious these features.

As noted above, claim 1 has been amended to include features somewhat similar as previous dependent claim 4. Regarding claim 4, the Examiner has acknowledged that the primarily relied upon Safi reference does not disclose the step of treating the liquid-contacted organic exhaust gas with an active carbon. In an effort to

overcome this acknowledged deficiency of the Safi reference, the Examiner has relied upon column 3, lines 37-41 of the Jaros et al. reference in particular, and has alleged that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to **further treat the liquid** in Safi '470 obtained after the bioreactor, with activated carbon, as suggested by Jaros '750 because such step is conventional in the art to further remove organic contaminants from the liquid" (our emphasis added).

The Jaros et al. reference as relied upon by the Examiner describes in column 3, lines 37-41 removal of organic contaminants from **waste waters, particularly industrial waste waters**. Waste water is passed through a bed of activated carbon. The Jaros et al. reference as relied upon by the Examiner does not disclose or suggest contacting treated exhaust gas with an active carbon, so as to absorb harmful substances remaining in the treated exhaust gas. The prior art as relied upon by the Examiner does not disclose two stages for treating an organic exhaust gas including contacting the organic exhaust gas with a treating liquid so as to dissolve the harmful substance into the treating liquid to provide treated exhaust gas, and subsequently contacting the treated exhaust gas with an active carbon so as to absorb the harmful substance remaining in the treated exhaust gas. Accordingly, Applicant respectfully submits that the method for treating an organic exhaust gas of claim 1 distinguishes over and would not have been obvious in view of the prior art as relied upon by the Examiner taken singularly or together, and that the above noted rejections, insofar as

they may pertain to claims 1-3 and 5, are improper for at least these reasons.

Claim 10 has been amended in a somewhat similar manner, wherein the method for eliminating a harmful substance from an organic exhaust gas includes in combination "...contacting the organic exhaust gas with a treating liquid so as to dissolve the harmful substance into the treating liquid and provide treated exhaust gas";... and "contacting the treated exhaust gas with an active carbon so as to absorb the harmful substance remaining in the treated exhaust gas into the active carbon".

Applicant respectfully submits that for at least somewhat similar reasons as set forth above, the prior art as relied upon by the Examiner does not disclose or make obvious these features. Applicant therefore respectfully submits that the method for eliminating a harmful substance from an organic exhaust gas of claim 10 distinguishes over and would not have been obvious in view of the prior art as relied upon by the Examiner taken singularly or together, and that the above noted rejections, insofar as they may pertain to claims 10-12 and 14, are improper for at least these reasons.

Claims 15-20

The method for eliminating a harmful substance from an organic exhaust gas of claim 15 includes in combination "...contacting the organic exhaust gas with a treating liquid so as to dissolve the harmful substance into the treating liquid and provide treated exhaust gas"; "providing a biological filter medium supporting bacteria, the biological filter medium having opposite first and second surfaces"; and "supplying the treating

liquid containing the harmful substance to the biological filter medium from opposite first and second directions to the opposite first and second surfaces, so that the harmful substance is biochemically degraded by the bacteria supported by the biological filter medium".

As described beginning on page 14, line 30 of the present application with respect to Fig. 2, treating liquid 260 stored in treating liquid tank 211 is supplied to the top of biological filter medium 221 from an upward side thereof via pipeline 238. As further described beginning on page 15, line 15 of the present application, up-flow washing nozzle 234 makes it possible to inject the treating liquid upward from nozzle portions thereof to the bottom of biological filter medium 221. It is therefore possible to also remove adhered dead bacteria by injecting the treating liquid from the nozzle portions of the up-flow washing nozzles 234.

Applicant respectfully submits that the prior art as relied upon by the Examiner does not disclose or suggest a method for eliminating a harmful substance from an organic exhaust gas, wherein treating liquid containing a harmful substance is supplied to a biological filter medium from opposite first and second directions to opposite first and second surfaces thereof, as would be necessary to meet the features of claim 15. Applicant therefore respectfully submits that the claims 15-20 distinguish over and would not have been obvious in view of the prior art as relied upon by the Examiner.

Regarding claims 20-22, the prior art as relied upon by the Examiner does not disclose a method of eliminating a harmful substance, further including in combination

supplying bubbled air to a biological filter medium, bacteria, or carriers supporting bacteria, as respectively featured in these claims. Applicant therefore respectfully submits that the claims 20-22 each respectively distinguish over and would not have been obvious in view of the prior art as relied upon by the Examiner for at least these additional reasons.

Conclusion

The Examiner is respectfully requested to reconsider and withdraw the corresponding rejections, and to pass the claims of the present application to issue, for at least the above reasons.

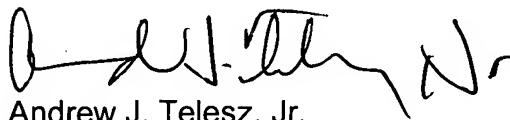
In the event that there are any outstanding matters remaining in the present application, please contact Andrew J. Telesz, Jr. (Reg. No. 33,581) at (571) 283-0720 in the Washington, D.C. area, to discuss these matters.

Pursuant to the provisions of 37 C.F.R. 1.17 and 1.136(a), the Applicant hereby petitions for an extension of two (2) months to July 13, 2006, for the period in which to file a response to the outstanding Office Action. The required fee of \$450.00 should be charged to Deposit Account No. 50-0238.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment for any additional fees that may be required, or credit any overpayment, to Deposit Account No. 50-0238.

Respectfully submitted,

VOLENTINE FRANCOS & WHITT, P.L.L.C.

A handwritten signature in black ink, appearing to read "Andrew J. Telesz, Jr.", with a stylized flourish at the end.

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Enclosures: One (1) drawing Annotated Sheet
One (1) drawing Replacement Sheet



ANNOTATED SHEET

Fig. 2

